

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:  
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Date of mailing  
(day/month/year) **09 DEC 2004**

Applicant's or agent's file reference  01640456TA		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No.  PCT/US05/09348	International filing date (day/month/year)  22 March 2005 (22.03.2005)	Priority date (day/month/year)  22 March 2004 (22.03.2004)	
International Patent Classification (IPC) or both national classification and IPC  IPC(7): A01N25/00 and US Cl.: 424/84			
Applicant  VIRGINIA TECH INTELLECTUAL PROPERTIES, INC.			

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I      Basis of the opinion
- ☐ Box No. II      Priority
- ☐ Box No. III      Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV      Lack of unity of invention
- ☒ Box No. V      Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI      Certain documents cited
- ☐ Box No. VII      Certain defects in the international application
- ☐ Box No. VIII      Certain observations on the international application

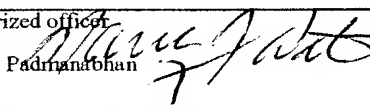
**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Date of completion of this opinion  30 September 2005 (30.09.2005)	Authorized officer  Sreeni Padmanabhan Telephone No. (571) 272-1600
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No. \_\_\_\_\_

PCT/US05/09548

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.             
PCT/US05/09348

**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)

Claims 30-34 YES

Claims 1-29, 35-38 NO

Inventive step (IS)

Claims NONE YES

Claims 1-38 NO

Industrial applicability (IA)

Claims 1-38 YES

Claims NONE NO

**2. Citations and explanations:**

Please See Continuation Sheet

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No. 15311  
PCT/US05/09348

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

**V. 2. Citations and Explanations:**

Claims 30-34 meet the criteria set out in PCT Article 33(2)-(3), because no single prior art reference explicitly discloses a method for attracting termites with at least one beta-2, 1-linked carbohydrate smaller than cellulose or a termite baiting station comprising the same and a housing with an opening for termite access to the composition.

Claim 1-38 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.

Claims 1-26, 28,35-38 lack novelty under PCT Article 33(2) as being anticipated by Hennart (US 4,189,475).

Hennart explicitly discloses a insecticide bait composition containing wheat flour (Column 7, examples 25,32). Wheat flour is ground grass and contains inulins, fructans and levans (See Catani et al. (US 5,998,177), column 1, lines 28-42; Scheibl (US 4,724,136), column 1, lines 34-38).

Claims 1-28,35-38 lack novelty under PCT Article 33(2) as being anticipated by Gould (US 4,774,098).

Gould et al. explicitly disclose a wheat flour dough in which 60%-70% by volume of the flour has be replaced by modified nonwoody, lignocellulosic substrate (Column 2, lines 33-48). Wheat flour is ground grass and contains inulins, fructans and levans (See Catani et al. (US 5,998,177), column 1, lines 28-42; Scheibl (US 4,724,136), column 1, lines 34-38).

Claims 1-25, 28,29,35-38 lack novelty under PCT Article 33(2) as being anticipated by Theuer et al. (US 5,840,361).

Theuer et al. explicitly disclose a puree of Jerusalem artichokes (Column 10, lines 13-51). Said puree will contain inulins, fructans and levans (Theuer et al., column 11, lines 43-68, column 12, lines 1-25; See also Catani et al. (US 5,998,177), column 1, lines 28-42; Scheibl (US 4,724,136), column 1, lines 34-38).

Claims 1-28, 30-38 lack an inventive step under PCT Article 33(3) as being obvious over Thorne et al. (US 5,555,672) in view of Prestwich (US 4,455,441), Minagawa et al. (US 5,096,710), Gould et al. (US 4,774,098). Catani et al. (US 5,998,177).

Thorne et al. disclose a termite bait station comprising a housing and termite food which is used to control termites (Column 2, lines 1-46).

Prestwich discloses that dried grass can be used as bait for termites (Column 16, lines 35-40).

Minagawa et al. disclose that wheat flours and powders are feeding attractants for termites (column 3, lines 23-39),

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No. **05/03481**  
PCT/US05/03481

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Gould et al. disclose a wheat flour dough in which 60%-70% by volume of the flour has be replaced by modified nonwoody, lignocellulosic substrate (Column 2, lines 33-48). It is disclosed that wheat are grasses (Column 3, lines 23-46).

Catani et al. disclose that plants, such as wheat, contain fructans, such as inulins, a 2,1 linked fructan, and levans (Column 1, lines 28-42).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose a method of attracting termites comprising at lest one beta-2,1 linked carbohydrate which is smaller than cellulose and a bait station comprising the same in a housing with at least one opening through which termites may travel to reach the composition. However, the prior art amply suggests the same as the prior art discloses a bait station for control of termites containing a bait, that dried grass is a bait, that wheat is a grass, that wheat flour or wheat powder is an feed attractant for termites and a composition containing wheat flower and a modify lignocellulosic substrate. As such, it would have been well within the skill of and a skilled artisan would have been motivated to modify the prior art as above with the expectation that the composition containing wheat flour and modify lignocellulosic substract would be a feeding attractant for termites and that the same would contain inulin, a 2,1 linked fructan.

## NOTES TO FORM PCT/IS-A/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between the Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g., the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

**When?** Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

**How?** Either by cancelling one or more entire claims, adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

#### What documents must/may accompany the amendments?

##### Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.